

## Differences in Entrepreneurial Skills of College Students in the Mexican Intercultural Context

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### Abstract

The purpose of this study is to describe the development of entrepreneurial skills of college students in the intercultural context of Mexico. By a non-probability sampling method, a sample of 120 students from an intercultural institution of higher education in the Southeastern Mexico was selected, from which two groups (*Indigenous* and *Mestizos*) were obtained to perform the corresponding statistical analyses. The first group was integrated by indigenous students ( $n = 55$ ) and the second group by mestizos ( $n = 65$ ). For data analysis, the Student *t* test and one-way analysis of variance (ANOVA) were used. The results showed no significant differences in the entrepreneurial skills between both groups. However, significant differences were obtained when considering the educational programs offered by the intercultural institution, where the program in sustainable rural development was the one that obtained a higher level regarding the development of entrepreneurial skills. This research contributes with empirical evidence to the knowledge on interculturality in this country.

**Keywords:** culture, entrepreneurial skill, college student, intercultural, Mexico

### 1. Introduction

There is a prevalent concept that entrepreneurship might be a key element for the economic development of nations (Kets de Vries, 1996; Lazear, 2005; McMullen, 2011; Peredo & McLean, 2013; Sautet, 2013; Shane & Venkataraman, 2000; World Bank, 1995), this is the reason why interest on the study of entrepreneurship and its characteristics have increased in the last decades (Venkataraman, 1998). As a result, besides its economic and social impacts, it is possible to notice the emergence of a great number of business organizations around the globe (Duarte & Ruiz, 2009; Drucker, 2015).

Nevertheless, despite entrepreneurship has turned into a relevant topic in social sciences, academic literature notes the lack of a general conceptual structure on this variable (Shane & Venkataraman, 2000; Yamada, 2004); in such a way that nowadays still doesn't exist a fully accepted definition of entrepreneurship (Gartner, 1988; Henry, Hill, & Leitch, 2005). However, it is possible to identify two basic perspectives or postures: the first one is oriented towards the organizational environment, where it is perceived as the capacity of innovating (McClelland, 1961; Schumpeter, 1950); while the second one refers to the ability to create a new business (Kets de Vries, 1985; Radziszewska, 2014; Venkataraman, 1998). This second perspective is precisely the one chosen as a reference for this study.

In consideration of the latter approach, the entrepreneur may be seen as an independent person who is capable to organize people and the necessary resources for the creation of businesses (Radziszewska, 2014); i.e., it is the person who founds a new business with the plan of making it grow through self-employment, management and coordination, as well as decision making related to the use of time, effort and money (Kets de Vries, 1985; Shane & Venkataraman, 2000; Venkataraman, 1998).

However, there is some controversy regarding the differences between those who are entrepreneurs and those who are not (Shane & Venkataraman, 2000). According to Mueller, Volery, and Von Siemens (2012), one way to

understand the entrepreneur is through his behavior, which plays an important role in relation with discovering, evaluating and exploiting the opportunities of one business idea. In this respect, Kets de Vries (1985; 1996) found that the personality of entrepreneurs is characterized by certain functional aspects that define them, which are known as entrepreneurial skills.

The entrepreneurial skills are defined as a set of abilities and attitudes that enable a person to start a business (Shane & Venkataraman, 2000), where it emphasized the permanent intention of managing resources to generate results according to the activity which is being performed (Quintero, 2007); the achieving of high levels of life and labor satisfaction (Blanchflower & Oswald, 1998), as well as the search of a benefit through individual or group work, and the identification of opportunities and innovation (Lazear, 2005). Considering these ideas, Tinoco (2008) proposes a taxonomy on such variable based on self-knowledge and a vision of the future (Kets de Vries, 1996), achievement motivation (McClelland, 1961), planning (Venkataraman, 1998), and persuasion (Yamada, 2004).

Based on the definition above, the study of entrepreneurial skills just begins to develop both conceptually and methodologically (Brazeal & Herbert, 1999, cited in Henry et al., 2005; Gartner, 1998; Shane & Venkataraman, 2000); and even more so when studying them within the context of native or indigenous peoples, where culture plays a determinant role (Morley, 2014; Peredo & McLean, 2013). It is worth mentioning that the theoretical and empirical evidence on the research of such variable within the intercultural context is almost non-existent (Dana & Anderson, 2007).

It should be noted that the study of entrepreneurship could be approached from different levels of analysis, where it is necessary to consider the social and cultural context (Yamada, 2004). For its part, culture certainly plays an important role in the capacity to undertake a business (Hofstede, Hofstede, & Minkov, 2010; Lounsbury & Glynn, 2001; Peredo & McLean, 2013; Radziszewska, 2014; Yetim & Yetim, 2006), which is partly because the creation and development of business must be based on the needs and expectations of their own communities and its cultural characteristics (Marín, 2015), which are diversified and become intercultural by means of the social interaction.

When referring to entrepreneurship within a particular cultural context, it is necessary to refer to the native entrepreneurship, since this is a potential instrument to counteract the endemic impoverishment suffered by indigenous peoples (Peredo & McLean, 2013). Thereon, Begley and Tan (2001) found that the cultural and social contexts influence on a different level of interest to entrepreneurs in countries of Western Asia, which differs from Anglo-Saxon countries; such findings provide empirical evidence that validates the hypothesis of cultural differences between these countries, this in addition to the studies of Hofstede (1980) who found that Western Asia countries are distinguished by having a collectivist culture different from the more individualistic cultural characteristics of the Anglo-Saxon nations.

Taking into account that most of the members of the indigenous peoples around the world possess high levels of poverty, low levels of education and limited access to health services (Peredo, Anderson, Galbraith, Honig, & Dana, 2004), entrepreneurship should be considered –through the realities of different cultures– as an instrument that impulse the development of the indigenous communities (Peredo & McLean, 2013); this because the concept of entrepreneurship has been built not only through the economic approach, but also the cultural one (European Union, 2012).

It is therefore necessary to promote the creation of companies –especially in the most vulnerable contexts–, since the promotion of the entrepreneurship can be considered a strategy to counteract the high poverty conditions in these indigenous communities (Hindle & Moroz, 2009; Marín, 2015; Peredo & McLean, 2013), which could constitute a means of protection against the exclusion and disadvantages of the labor market (Rodríguez, Sánchez, & Estévez, 2011). It is important to note that this strategy has shown positive results in some countries such as Australia, where in two decades (1991-2011) the number of indigenous entrepreneurs increased nearly 300 per cent (Hunter, 2013, cited in Morley, 2014).

It is important to point out that there are few international studies on indigenous entrepreneurship (Apaza & Moreno, 2008; Furneaux & Brown, 2007; Westpac Group, 2014); notable among these are Furneaux and Brown (2007) who found in Australia that the average creation of new companies by the indigenous people was lower than Caucasians, as well as Apaza and Moreno (2008) in Peru, who studied dairy companies, community-based tourism, and women engaged in handicrafts.

In the case of Mexico, the theme of indigenous entrepreneurship also has been scarcely researched, being few the studies that provide empirical evidence on the matter (Barba-Sánchez & Molina, 2015; Rodríguez et al., 2011; Torres & Anderson, 2007). Among the few studies it is possible to mention to Torres and Anderson (2007), who

investigated a Mayan agro-ecological center in the state of Chiapas; Barba-Sánchez and Molina (2015), who studied entrepreneurs of ecotourism businesses of central and southeast Mexico; and finally Rodríguez et al. (2011), who studied women entrepreneurs of *Nahuatl* origin. It is clear that such evidence is not enough to understand this multicultural country, which has a population of 16 million people considered as members of some indigenous group (Marín, 2015), –the greatest indigenous population of America according to Schmelkes (2013)- where coexist 68 ethno-linguistic groups that comprise 264 dialectal variants (Instituto Nacional de Lenguas Indígenas, 2009).

Consequently, in the case of Mexico it is necessary to go beyond the simple indigenous entrepreneurship and focus on intercultural entrepreneurship, where economical growth is promoted through the interaction between different cultures. It should be noted that the intercultural approach is the one which promotes the acknowledgment of the person and the validation of others (Organización Panamericana de la Salud, 2008), the respect for cultural diversity and for the rights of indigenous people (Ávila, 2011), the coexistence of different cultures (Dietz & Mateos, 2011), and the promotion of differences (Barriga-Villanueva, 2008; Flores-Crespo & Barrón, 2006). Likewise, through dialogue, the multiculturalism allows people to acquire values that determine how they see themselves and how to perceive the world, taking as a basis the respect and appreciation for the others -despite their cultural differences- (Schmelkes, 2003).

Considering that cultural differences have a significant influence on entrepreneurial behavior of members of a particular community -and even more in the intercultural context- (Berkes & Adhikari, 2006; Radziszewska, 2014; Petrakis & Kostis, 2014; Yamada, 2004), and also that the creation and development of enterprises is based on the needs and expectations of their own communities and their cultural characteristics (Marín, 2015); then it is possible to state the following research question: What differences exist in the development of entrepreneurial skills when comparing two groups of intercultural students (*Indigenous* and *Mestizos*)?

Reference to intercultural students is made from the context of interaction between different cultures that exist in Mexico, within the educational model of intercultural universities emerged in 2003 (Sandoval-Forero & Guerra-García, 2007). Mexican universities that adopt this model, offer educational programs whose purpose is to promote the development of indigenous peoples through the learning of scientific knowledge and its integration with the ancestral knowledge, besides the generation of productive and self-managed projects (González, 2007). Additionally, this model also pretends to avoid segregation of individuals and to promote a culture of respect for the differences among people (Flores-Crespo & Barrón, 2006).

According to Dietz and Mateos (2011), through this model and its pedagogical approach different from the traditional (Western model) -which leverages the heterogeneity of classrooms and aims to the empowerment of individuals-, it has sought to generate entrepreneurs to support indigenous communities. Moreover, Sandoval-Forero and Guerra-García (2007) mention that intercultural universities represent a different didactic application by considering and leveraging the natural, social and cultural context of each one of the ten states where such institutions of higher education are established (Chiapas, Estado de México, Guerrero, Michoacán, Puebla, Quintana Roo, San Luis Potosí, Sinaloa, Tabasco, and Veracruz), and offer a variety of undergraduate programs of different academic disciplines (medical, social, agro-industrial, managerial, pedagogical, and communication sciences).

Finally, González (2007) adds that the common target of all these educational programs is to promote the community development through the generation of productive projects, which in turn requires the development of entrepreneurial skills for it; this on the basis that developing entrepreneurship comes from its promotion within the institutions of higher education (Achtenhagen & Knyphausen-Aufsess, 2008). This leads to a second research question: What differences exist in the development of entrepreneurial skills of intercultural students when considering different undergraduate programs (*Tourism development, Sustainable rural development, Intercultural nursing, Language and culture, and Intercultural communication*)?

As possible answers to the previous research questions, the next two hypotheses are established:

*H*<sub>1</sub>: There are significant differences in the development of entrepreneurial skills when comparing two groups of intercultural students (*Indigenous* and *Mestizos*).

*H*<sub>2</sub>: There are significant differences in the development of entrepreneurial skills of intercultural students when considering different undergraduate programs (*Tourism development, Sustainable rural development, Intercultural nursing, Language and culture, and Intercultural communication*).

## 2. Method

This study utilizes a quantitative research approach, whose scope can be classified as descriptive and

comparative (Creswell, 2014; Hernández, Fernández, & Baptista, 2014). By means of a non-probabilistic sample, 120 undergraduate students from an intercultural university in a southeastern state of Mexico participated in the investigation. The main characteristics of these participants are described in Table 1.

To achieve the study's purpose, the measurement instrument utilized was composed of two parts, the first related to the sociodemographic data and the second by the scale of entrepreneurial skills proposed by Tinoco (2008). Regarding this scale, a total of 20 questions were shown whose answers were collected by a Likert-type scale with five options to respond, varying from 1 (*Never*) to 5 (*Always*). Furthermore, this scale was constituted by five factors or subdimensions (self-knowledge, vision of the future, achievement motivation, planning, and persuasion), which resulted with an acceptable internal consistency (reliability  $\geq .70$ ) by means of the Cronbach Alpha coefficient ( $[\alpha]$ ; Morales, 2007). The coefficients for each of the factors previously mentioned are the following: Self-knowledge ( $\alpha = .72$ ), Vision of the future ( $\alpha = .70$ ), Achievement motivation ( $\alpha = .72$ ), Planning ( $\alpha = .70$ ), and persuasion ( $\alpha = .71$ ).

For the application of the instrument, the proper permission of the university authorities was requested and obtained. Subsequently, students were invited to participate in the study voluntarily and always guaranteeing the confidentiality of the information provided by them. Once collected the sample data, the program SPSS (version 22) was used for the statistical analysis (Student's *t* test, One-Way Analysis of Variance [ANOVA], Post-Hoc comparisons) of the information.

Table 1. Characteristics of the college students participating in the study ( $N = 120$ )

Characteristics	<i>n</i>	%
Age (years)		
17–21	86	72
22–26	25	20
$\geq 27$	9	8
Gender		
Male	52	43.3
Female	68	56.7
Birthplace (State)		
Tabasco	64	53.3
Chiapas	63	46.7
Native language speaker		
Yes	55	45.8
No	65	54.2
Name of the native language		
Ch'ol	40	72.7
Zoque	12	21.8
Tzotzil	2	3.7
Chontal	1	1.8
Educational programs		
Tourism development	27	22.5
Sustainable rural development	15	12.5
Intercultural nursing	55	45.8
Language and culture	17	14.2
Intercultural communication	6	5

Note. Own elaboration.

### 3. Results

To test the research hypotheses, it was decided that the most appropriate statistical models were the Student's *t* test and one-way ANOVA. The independent *t* test to evaluate the difference between the means of two independent groups ([*Indigenous* and *Mestizos*] Ho, 2014), and the one-way ANOVA was used to know whether the means of several independent groups differ ([*undergraduate programs*] Hernández et al., 2014).

First, the study findings did not provide support for  $H_1$  because no significant differences were found regarding the entrepreneurial skills when comparing two groups of intercultural students -Indigenous and Mestizos- (see

Table 2). These results contradict what has been pointed out by Hofstede (1980), Yamada (2004), Berkes and Adhikari (2006), and Radziszewska (2014), for whom the cultural differences have a significant influence on the behaviors to generate new businesses; such is the case of entrepreneurial skills. Although it is not possible to generalize this result, the empirical evidence suggests that within the intercultural context, both the people who are part of some indigenous people -whether it is ch'ol, zoque, tzotzil or chontal- and mestizos, do not differ in terms of their abilities to generate business.

Table 2. Comparison of groups with regard to entrepreneurial skills ( $N = 120$ )

Entrepreneurial skills	Indigenous group ( $n = 55$ )		Mestizo group ( $n = 65$ )		$df$	$t$	$p$	Cohen's $d$
	$M$	$SD$	$M$	$SD$				
Self-knowledge	4.00	0.64	3.97	0.74	118	0.282	.188	0.051
Vision of the future	3.90	0.57	3.85	0.75	118	0.416	.237	0.076
Achievement motivation	4.04	0.58	4.13	0.65	118	-0.788	.114	-0.014
Planning	3.96	0.61	4.04	0.62	118	-0.689	.874	-0.126
Persuasion	3.49	0.78	3.55	0.76	118	-0.386	.468	-0.071

Note. Own elaboration.

Second, there were found significant differences in the development of entrepreneurial skills of intercultural students when considering different undergraduate programs (see Table 3 in Appendix), these are: self-knowledge ( $F = 2.45$ ,  $p = .050$ ), achievement motivation ( $F = 2.79$ ,  $p = .029$ ), and planning ( $F = 2.55$ ,  $p = .043$ ). This result provides partial support to  $H_2$ . It is worth noting that among the different undergraduate programs, the program of sustainable rural development obtained the higher values within the entrepreneurial skills of self-knowledge ( $M = 4.46$ ,  $SD = 0.39$ ), achievement motivation ( $M = 4.48$ ,  $SD = 0.53$ ), and planning ( $M = 4.41$ ,  $SD = 0.45$ ); this was also confirmed in the *Post-hoc* test, where findings suggest this prevalence of sustainable rural development over tourism development and intercultural nursing (see Table 4).

Table 3. Mean scores on five entrepreneurial skills as a function of the educational programs

Entrepreneurial Skills	Educational programs										Post hoc
	Tourism development (1)		Sustainable rural development (2)		Intercultural nursing (3)		Language and culture (4)		Intercultural communication (5)		
	$M$	$SD$	$M$	$SD$	$M$	$SD$	$M$	$SD$	$M$	$SD$	
Self-knowledge	3.87	0.52	4.46	0.39	3.88	0.78	4.07	0.76	4.04	0.58	2 > 3
Vision of the future	3.76	0.62	4.25	0.36	3.81	0.78	3.89	0.56	4.04	0.46	-
Achievement motivation	3.88	0.54	4.48	0.53	4.02	0.69	4.25	0.47	4.12	0.52	2 > 1
Planning	3.86	0.64	4.41	0.45	3.93	0.64	4.13	0.52	4.04	0.51	2 > 1, 3
Persuasion	3.32	0.63	3.81	0.49	3.50	0.85	3.63	0.87	3.62	0.77	-

Note. The numbers in parentheses in column heads refer to the numbers used for illustrating significant differences in the "Post hoc" column. For all measures, higher means indicate higher entrepreneurial skills. The comparison of means was performed using the Bonferroni method. The differences were significant at  $p < .05$ .

#### 4. Conclusion

It should be considered that the development of entrepreneurship around the world is partly due to its promotion in the institutions of higher education (Achtenhagen & Knyphausen-Aufsess, 2008). In this sense, one of the main objectives of the intercultural universities -institutions that seek to counteract the social inequality and poverty of the members of the indigenous peoples of Mexico (Guitart & Rivas, 2008)-, has been to develop the entrepreneurial skills of the people living in the regions where there is interaction between different cultures. Taking in consideration this particular context, the study aimed to describe the development of entrepreneurial skills of college students in the intercultural context of Mexico.

The results provide empirical evidence that suggests that there are no differences in these skills among individuals who are part of some indigenous people and mestizos. Such findings contradict the ideas proposed by

Hofstede (1980), Yamada, (2004), Berkes and Adhikari (2006), Peredo and Anderson, (2006), Peredo and McLean (2013), Westpac Group (2014), and Radziszewska (2014), for whom culture affects the development of the behavior of entrepreneurs. However, it is possible that the results are being affected by the lack of representativeness of the sample (sample size) and the sampling method (non-probability sample), which could be only discarded through new investigations of the intercultural groups to confirm these findings in Mexico.

Furthermore, to achieve the purpose of training entrepreneurs in the intercultural universities -mainly in the indigenous regions of Mexico-, it is necessary to involve other actors such as the communities themselves and the government. There is also necessary to underline that the economic development of the indigenous peoples is most successful when it is led by the communities themselves, being many the opportunities through which governments can contribute to the businesses' success in these regions (Westpac Group, 2014).

For forthcoming investigations could be relevant to study the relationship and involvement of the community and the government as promoters of the intercultural entrepreneurship, this under the perspective of the intercultural social capital. Moreover, could be considered the networks between the business of the members of indigenous peoples and others that are not, since these networks apparently favor regional entrepreneurship and community development. Finally, for future studies, it is recommended to use several versions of the measuring instrument according to the languages of the participants, this because for many of the persons in the study their mother tongue is not Spanish.

Globalization has made it possible to carry out a closer contact between different cultures, resulting in a greater intercultural dialog that involves the interaction of attitudes, behaviors, knowledge and skills (United Nations Educational, Scientific and Cultural Organization, 2013). This enables intercultural entrepreneurship, which allows the economic and social development of the indigenous groups that decide to undertake new businesses due to the lack of employment opportunities (Rodríguez et al., 2011). The present study represents a starting point for further research under this approach in intercultural groups, where theoretical and empirical evidence remains very scarce.

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## Appendix

Table 3. One-way analysis of variance for the effects of the educational programs on entrepreneurial skills

Educational programs	<i>M</i>	<i>SD</i>	<i>F</i> (4, 115)	<i>p</i>	$\eta^2$
Self-knowledge					
Tourism development	3.87	0.52	2.45*	.050	.079
Sustainable rural development	4.46	0.39			
Intercultural nursing	3.88	0.78			
Language and culture	4.07	0.76			
Intercultural communication	4.04	0.58			
Vision of the future					
Tourism development	3.76	0.62	1.58	.185	.052
Sustainable rural development	4.25	0.37			
Intercultural nursing	3.81	0.78			
Language and culture	3.89	0.56			
Intercultural communication	4.04	0.46			
Achievement motivation					
Tourism development	3.88	0.54	2.79*	.029	.089
Sustainable rural development	4.48	0.53			
Intercultural nursing	4.02	0.69			
Language and culture	4.25	0.47			
Intercultural communication	4.12	0.52			
Planning					
Tourism development	3.86	0.64	2.55*	.043	.081
Sustainable rural development	4.41	0.45			
Intercultural nursing	3.93	0.64			
Language and culture	4.13	0.52			
Intercultural communication	4.04	0.51			
Persuasion					
Tourism development	3.32	0.63	1.13	.346	0.38
Sustainable rural development	3.81	0.49			
Intercultural nursing	3.50	0.85			
Language and culture	3.63	0.87			
Intercultural communication	3.62	0.77			

Note. Own elaboration. *N* = 120. \*  $p \leq .05$ .

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